GOVERNMENT OF INDIA
EARTH SCIENCES
LOK SABHA

UNSTARRED QUESTION NO:1632
ANSWERED ON:09.12.2015
Rainfall Prediction
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Will the Minister of EARTH SCIENCES be pleased to state:

(a) whether less than normal monsoon has been registered in several parts of the country during the current year;

(b) if so, the details and its impact thereof and the reasons therefor along with the States most affected by deficient rainfall;

(c) whether the prediction regarding monsoon this year was not accurate; and

(d) if so, the measures taken by the Government for accurate prediction of monsoon?

Answer

The MINISTER OF STATE FOR MINISTRY OF SCIENCE AND TECHNOLOGY AND
MINISTRY OF EARTH SCIENCES
(SHRI Y. S. CHOWDARY)

(a) Yes Madam.
(b) The SW monsoon season rainfall (during June to September, 2015) over the country as a whole was about 86% of its long period average (LPA). Thus, years 2014 & 2015 were two consecutive years having deficient monsoon rainfall. Seasonal rainfall was 83% of its LPA over Northwest India, 84% of its LPA over Central India, 85% of its LPA over South Peninsula and 92% of its LPA over Northeast India. The states most affected by deficit rainfall include Maharashtra, Telengana, Bihar, Uttar Pradesh, Uttarakhand, Himachal Pradesh, Punjab, Haryana, some parts of Karnataka, Gujarata & Madhya Pradesh. The major impacts of deficient rainfall affects farm yields due to scarcity of water and even affects safe drinking water supplies.
One of the most important reasons for deficient rainfall over the country (during 2015 summer monsoon season) is the occurrence of strong El-Nino (warming of Sea-surface water over the equatorial Pacific ocean) event, which persisted over the equatorial Pacific. Based on dynamical model predictions, Earth System Science Organisation-Indian Institute of Tropical Meteorology (ESSO-IITM) is providing the updates for El-Nino status & predictions. It was predicted in advance that "The El-Nino effect is expected to be moderate to strong during the monsoon season (June to September, 2015) and it is likely to cause decrease in seasonal (June to September) rainfall quantum over Indian region".
(c) No Madam. The prediction regarding monsoon this year was accurate. ESSO−India Meteorological Department (ESSO-IMD) has predicted monsoon 2015 seasonal rainfall of 88% of LPA Â±4% model error way back in April 2015 and the season (June-September) rainfall over the country as a whole was realised 86% of its LPA.
(d) During the XII Plan, under the National Monsoon Mission initiative, other institutions of ESSO, ESSO-IITM Pune, Indian National Centre for Ocean Information Services (ESSO-INCOIS), Hyderabad and National Centre for Medium Range Weather Forecasting (ESSO-NCMRWF), NOIDA have embarked upon to build a state-of-the-art coupled ocean-atmospheric climate model for a) improved prediction of monsoon rainfall on extended range to seasonal time scale (16 days to one season) and b) improved prediction of temperature, rainfall and extreme weather events on short to medium range time scale (up to 15 days) so that forecast skill gets quantitatively improved further for operational services of ESSO-IMD.